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| 09/894,642 | 06/27/2001 | Kenneth H. Abbott | 29443-8020US4 | 1958 |

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| SEED INTELLECTUAL PROPERTY LAW GROUP PLLC | LIN, KELVIN Y |

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| ART UNIT | PAPER NUMBER |
|---|---|
| 2142 | |

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| | Office Action Summary | Application No. | Applicant(s) |
|---|---|---|---|
| | | 09/894,642 | ABBOTT ET AL. |
| | | Examiner | Art Unit |
| | | Kelvin Lin | 2142 |

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

1)☒ Responsive to communication(s) filed on <u>22 September 2005</u>.

2a)☐ This action is **FINAL**.    2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

4)☒ Claim(s) <u>66-172</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>66-172</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

### Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All  b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>3/21/05</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

# Detailed Action

# Response to Argument

Applicant's argument about claiming the benefit of priority of provisional No.

60194004, and 60193999, both filed on April 2, 2000 is persuasive.

### *Claim Rejections - 35 USC § 102*

(e) the invention was described in (1) an application for patent, published under section 122(b), by
another filed in the United States before the invention by the applicant for patent or (2) a patent
granted on an application for patent by another filed in the United States before the invention by the
applicant for patent, except that an international application filed under the treaty defined in section
351(a) shall have the effects for purposes of this subsection of an application filed in the United States
only if the international application designated the United States and was published under Article 21(2)
of such treaty in the English language.

1.      Claims 66-104, 107-109, 111-172 are rejected under 35 U.S.C 102(e) as being

anticipated by Carroll et al., (US Patent 6285757).

2.      Regarding claim 66, Carroll teaches a method for a remotely executing user

characterization system (Carroll , fig.1, interactive device 10) to provide

information about a current state of a user of a thin client wearable computer,

the user characterization system modeling the current state with multiple state

attributes and including state server modules (SSMs) to supply values for the

state attributes (Carroll,col.5, l.39-43, in which the sensors 170 provides

information corresponds to state attribute), state client modules (SCMs) to

process values for the state attributes (Carroll, col.7, l.36-39, in which sensor 170

also process information on surrounding environment), and an intermediary

module to facilitate   exchange of state attribute values (Carroll, col.7, l.26-28, the

interactive device corresponds to the intermediary module which can exchange

the sensor information between inward and outward), the method comprising:

a.      under control of each SSM, gathering information about the current state

        of the user, generating values for at least one of the state attributes based

        on the gathered information, and sending the generated values to the

        intermediary module (Carroll, col. 5, l.42-45, the sensor corresponds SSM

        sends the distance information and lens provides the enhance view).

b.      under control of each SCM, receiving values for at least one state attribute

        from the intermediary module and performing processing based on the

        received values (Carroll, col.7, l.43-45, the interactive device can receive

        signal from GPS).

c.      under control of the intermediary module (interactive device), facilitating

        exchange of values by,

        • receiving the sent values for the state attributes from the

          SSMS  (Carroll, col.5, l.43-44, interactive device receives the

          information from sensor) and

        • sending at least some of the received values to the SCMs

          (Carroll, col. 5, l.40-42, and conjunction with the lens (one of

          SCMs) to provide the enhance viewing);  and

        • interacting with the thin client wearable computer  in order to

          provide information about the user or to receive information

about the user so that the remote user characterization

system can obtain and provide information about the current

state of the user of the thin client wearable computer (Carroll,

fig.3, interactive device can remotely communicates with

component 150, 160, 170 ...)..

3.      Regarding claim 67, Carroll further discloses the method of claim 66 wherein the

thin client wearable computer includes an output device, and wherein the

interacting with the thin client wearable computer includes sending information

for presentation to the user on the output device (Carroll, col.3, l.23-25, the

display interface corresponds to the output device ).

4.      Regarding claim 68, Carroll further discloses the method of claim 67 wherein the

Information to be sent for presentation to the user is generated by the processing

of one of the SCMs, and wherein the sending of the information for  presentation

to the user on the output device is performed on behalf of that SCM (Carroll, col.

5, l.40-42, and conjunction with the lens (one of SCMs) to provide the enhance

viewing)

5.      Regarding claim 69, Carroll further discloses the method of claim 66 wherein the

thin client wearable computer includes an input device, and wherein the

interacting with the thin client wearable computer includes receiving information

provided by the user via the input device (Carroll, col. 6, l.60-62, microphone

corresponds to input device).

6.      Regarding claim 70, Carroll further discloses the method of claim 69 wherein the

gathering of the information about the current state of the user by one of the

SSMs includes obtaining the received information provided by the user via the

input device (Carroll,col.5, l.32-34, the voice recognition need input from

microphone)

7.      Regarding claim 71, Carroll further discloses the method of claim 66 wherein the

user characterization system executes on a computer remote from the thin client

wearable computer, wherein the thin client wearable computer lacks resources

accessible to the remote computer, and wherein the interacting with the thin

client wearable computer includes receiving a request to access at least one of

the resources on behalf of the thin client wearable computer and accessing those

resources in response (Carroll, col.8, l.31-34, the interactive communication

corresponds to the accessing resource in response).

8.      Regarding claim 72, Carroll further discloses the method of claim 71 wherein the

at least one resources include processing capabilities of the remote computer,

wherein the accessing of those resources includes using the processing

capabilities on behalf of the thin client wearable computer, and including sending

an indication of results to the thin client wearable computer (Carroll, col.8, l.31-34

the interactive communication includes the sending an indication of result to the

interactive device).

9.      Regarding claim 73, Carroll further discloses the method of claim 71 wherein the

at least one resources are storage capabilities of the remote computer, and

wherein the accessing of those resources includes sending information stored on

the storage capabilities to the thin client wearable computer (Carroll, fig.3, component 200).

10.    Regarding claim 74, Carroll further discloses the method of claim 71 wherein the at least one resources are storage capabilities of the remote computer, and wherein the accessing of those resources includes storing information received from the thin client wearable computer on the storage capabilities (Carroll, fig. 3, component 200).

11.    Regarding claim 75, Carroll further discloses the method of claim 71 wherein the remote computer has a sensor receiving information about the user of the thin client wearable computer, and wherein the gathering of the information about the current state of the user by at least one of the SSMs includes obtaining information from the sensor (Carroll, col.7, l.39-41).

12.    Regarding claim 76, Carroll further discloses the method of claim 71 wherein the remote computer has an output device that is perceivable by the user of the thin client wearable computer, and wherein the performing of the processing based on the received values by at least one of the SCMs includes presenting information to the user on the output device. (Carroll, col.5, l.40-43)

13.    Regarding claim 77, Carroll further discloses the method of claim 66 wherein the gathering of the information about the current state of the user by at least one of the SSMs includes obtaining information from at least one sensor that is part of the thin client wearable computer (Carroll, col. 7, l.35-38).

14.    Regarding claim 78, Carroll further discloses the method of claim 66 wherein the

performing of the processing based on the received values by at least one of the

SCMs includes supplying information to at least one output device that is part of

the thin client wearable computer (Carroll, col. 7, l.30-35).

15.    Regarding claim 79, Carroll further discloses the method of claim 66 wherein the

user characterization system further includes an additional module executing on

the thin client wearable computer, and wherein the interacting with the thin client

wearable computer includes interacting the additional executing module (Carroll,

fig.3, component 180).

16.    Regarding claim 80, Carroll further discloses the method of claim 66 wherein at

least one of the SSMs executes on the thin client wearable computer and

communicates with the intermediary module via wireless communication (Carroll,

col.3, l.24-25).

17.    Regarding claim 81, Carroll further discloses the method of claim 66 wherein at

least one of the SCMs executes on the thin client wearable computer and

communicates with the intermediary module via wireless communication (Carroll,

col.3, l.39-45)

18.    Regarding claim 82, Carroll further discloses the method of claim 66 wherein at

least some of the SSMs are available to supply values for additional state

attributes of a current state other than for the user, and wherein the intermediary

module additionally sends values for the additional state attributes to SCMs (

Carroll, col.5, l.10-14, col. 8, l.24-44, in which the interactive device can sends

value either from sensor or computer and alerting alarms)

19.    Regarding claim 83, Carroll further discloses a method in a computer for

providing information about a current state related to a thin client, the current

state represented with multiple state attributes, the method comprising :

   a. Obtaining information that is related to the current state (Carroll,

      col.5, l.40-42, lens obtaining the user information of distance from

      sensor);

   b. generating a value for each of at least one of the multiple state

      attributes of the represented current state based on the obtained

      information (Carroll, col.5, l.40-42, lens automatic sizing);

   c. determining a module having an interest in at least one of the

      generated values (Carroll, col.5, l.40-44, interactive device

      determine the sensor conjunction with lens); and

   d. providing to the determined module the generated values in which

      the determined module can act in accordance with the current state

      of the thin client (Carroll, col. 5, l.40, lens automatic sizing

      corresponds to the act in accordance with the current state).

20.    Regarding claim 84, Carroll further discloses the method of claim 83 wherein the

thin client is a remote system including at least one of an input device and an

output device (Carroll, col.3, l. 47, l.66-67).

21.    Regarding claim 85, Carroll further discloses the method of claim 84 wherein the

obtaining of the information that is related to the current state includes

communicating with the thin client via wireless communication in order to receive

the information from the thin client (Carroll, col. 3, l.24-25).

22.    Regarding claim 86, Carroll further discloses the method of claim 84 wherein the

obtaining of the information that is related to the current state includes receiving

information gathered by the input device of the thin client (Carroll, col. 7, l.35-38).

23.    Regarding claim 87, Carroll further discloses the method of claim 84 wherein the

obtaining of the information that is related to the current state includes receiving

information gathered by a sensor of the thin client (Carroll, col.7, 34-36)

24.    Regarding claim 88, Carroll further discloses the method of claim 84 wherein the

obtaining of the information that is related to the current state includes receiving

information from a computing device distinct from the thin client that has access

to information about the thin client (Carroll, fig.3, component 200).

25.    Regarding claim 89, Carroll further discloses the method of claim 88 wherein  the

distinct computing device has access to information about the thin client based

on sensing the information (Carroll, col. 7, l.26-30).

26.    Regarding claim 90, Carroll further discloses the method of claim 88 wherein the

distinct computing device has access to information about the thin client based

on interactions with the thin client (Carroll, col. 7, l.26-30).

27.    Regarding claim 91, Carroll further discloses the method of claim 84 wherein the

obtaining of the information that is related to the current state includes interacting

with a software module executing on the thin client (Carroll, col. 5, l.34-35, voice

recognition corresponds to the software module).

28.    Regarding claim 92, Carroll further discloses the method of claim 84 wherein the

determined module is executing on the thin client (Carroll, col. 5, l. 34-35).

29.     Regarding claim 93, Carroll further discloses the method of claim 92 wherein the

providing of the generated values to the determined module causes information

to be presented on the output device of the thin client (Carroll, col. 5, l.33-34,

to improve the sounds quality).

30.     Regarding claim 94, Carroll further discloses the method of claim 84 wherein the

thin client system lacks resources accessible to the computer and including

accessing at least one of the resource on behalf of the thin client. (Carroll,

col. 8, l.31-34).

31.     Regarding claim 95, Carroll further discloses the method of claim 94 wherein the

at least one resources include processing capabilities of the computer and

wherein the accessing of those resources includes using the processing

capabilities on behalf of the thin client system (Carroll, fig.3, component 200)

32.     Regarding claim 96, Carroll further discloses the method of claim 94 wherein the

at least one resources are storage capabilities of the computer, and wherein the

accessing of those resources includes storing information on or retrieve

information from the storage capabilities (Carroll, col. 5, l.34-35, voice recognition

stores the user's voice)

33.     Regarding claim 97, Carroll further discloses the method of claim 83 wherein the

generating of the state attribute values based on the obtained information

includes analyzing the obtained information (Carroll, col. 5, l.34-35, voice

recognition corresponds to the analyzing the obtained information)

34.     Regarding claim 98, Carroll further discloses the method of claim 97 wherein the

        obtained information includes information from at least one input device of the

        thin client (Carroll, col. 5, l.34-35, col.6, l.60-62, microphone input user voice).

35.     Regarding claim 99, Carroll further discloses the method of claim 97 wherein the

        obtained information includes information from at least one sensor device of the

        thin client (Carroll, col.5, l.40-45).

36.     Regarding claim 100, Carroll further discloses the method of claim 83 wherein

        the determining of the module having the interest in at least one of the generated

        values includes receiving a request from the determined module for those

        generated values. (Carroll, col.8, l.31-34)

37.     Regarding claim 101 , Carroll further discloses the method of claim 83 wherein

        the determining of the module having the interest in at least one of the generated

        values includes receiving a request from the determined module for values of the

        state attributes to which those generated values correspond (Carroll, col.5, l.40

        44, interactive device determine the sensor conjunction with lens).

38.     Regarding claim 102 , Carroll further discloses the method of claim 83 wherein

        the determining of the module having the interest in at least one of the generated

        values includes identifying  a previously supplied indication of interest from the

        determined module (Carroll, col. 11, l.59-60).

39.     Regarding claim 103 , Carroll further discloses the method of claim 83 wherein

        the determined module is a characterization module that facilitates exchange of

        values of the state attributes representing the current state related to the thin

client (Carroll, col.7, l.26-28)

40.     Regarding claim 104 , Carroll further discloses the method of claim 83 wherein

the determined module is a characterization module that models the current state

related to the thin client (Carroll, col. 5, l.40-42).

41.     Regarding claim 107, Carroll further discloses the method of claim 83 wherein

the thin client is a computing device, and wherein the at least one state attributes

represent information about the thin client (Carroll, col. 7, l.26-30).

42.     Regarding claim 108, Carroll further discloses the method of claim 83 wherein

the at least one state attributes represent information about a physical

environment related to the thin client (Carroll, col.7, l.26-30).

43.     Regarding claim 109, Carroll further discloses the method of claim 83 wherein

the at least one state attributes represent information about a cyber-environment

related to the thin client (Carroll, col. 7. l.26-30).

44.     Regarding claim 111, Carroll further discloses the method of claim 83 wherein

the obtained information is received from the thin client, and wherein security

information must be provided to the thin client before the information is supplied

from the thin client. (Carroll, col. 5, l.10-13)

45.     Regarding claim 112, Carroll further discloses the method of claim 83 wherein

the obtained information is received from the thin client, and wherein security

information must be received from the thin client before the obtained information

is accepted from the thin client (Carroll, col. 5, l.10-13).

46.     Regarding claim 113, Carroll further discloses the method of claim 83 wherein

the determined module is part of the thin client, and wherein security information

must be provided before the provided generated values are accepted by the

thin client (Carroll, col. 5, l.10-13).

47.    Regarding claim 114, Carroll further discloses the method of claim 83 wherein

the determined module is part of the thin client, and wherein security information

must be received from the thin client before the generated values are provided to

the thin client (Carroll, col.5, l.10-13).

48.    Regarding claim 115, Carroll further discloses the method of claim 83 wherein

the thin client is a software module executing on a remote computing device

(Carroll, col.4, l.9-11).

49.    Regarding claims 116-118 have similar limitation as claims 83-85. Therefore,

claims 116-118 are  rejected for the same reason set forth in the rejection of

claims 83-85.

50.    Regarding claims 119-120 have similar limitation as claims 83, 85-86. Therefore,

claims 119-120 are rejected under Carroll for the same reason set forth in the

rejection of claim 83, 85-86.

51.    Regarding claim 121 has similar limitation as claim 83. Therefore, claim 121 is

rejected under Carroll for the same reason set forth in the rejection of claim 83.

52.    Regarding claims 122-138 have similar limitation as claims 83-86, 91, 93-98,

100, 105-109.  Therefore, claims 122-138 are rejected under Carroll for the same

reason set forth in the rejection of claims 83-86, 91, 93-98, 100, 105-109.

53.    Regarding claim 139 has similar limitation as claim 122. Therefore, claim 139 is

rejected under Carroll for the same reason set forth in the rejection of claim 122.

54.    Regarding claim 140, Carroll further discloses a computer for providing

functionality to  a remote thin client portable computing device based on a

context related to the remote thin client that is represented with multiple modeled

attributed, comprising:

- An attribute value exchange module that is capable of obtaining

  values of the attributes from sources and of supplying the obtained

  values to clients having an interest in those values (Carroll, col.7,

  I.26-28),  and

- A functionality provider module that is capable of receiving a

  request from  the remote thin client and providing functionality as

  requested based on values of the attributes (Carroll, col.8, I.31-34).

55.    Regarding claim 141, Carroll further discloses a method for a thin client

computing device to assist a remote characterization module in modeling a

current state of the thin client with multiple state attribute, the method comprising:

- Receiving an indication of information related to the current state

  (Carroll, col.5, I.10-12)

- Sending to the remote characterization module the indicated information

  related to the current state (Carroll, col.5, I.10-12)

- Receiving from the remote characterization module an instruction that is

  based on one or more values of the modeled state attributes (Carroll,

  col. 7, I.39-40); and

- Performing the instruction in accordance with the current state.(Carroll,

    col. 7, l.41-43)

56.    Regarding claims 142-149 have similar limitation as claims 85-92.

    Therefore, claims 142-149 are rejected under Carroll for the same

    reason set forth in the rejection of claims 85-92.

57.    Regarding claims 150-160 have similar limitation as claims 83-84, 86-87, 93-96,

    105, and 107. Therefore, claims 150-160 are rejected under Carroll for the same

    reason set forth in the rejection of claims 83-84, 86-87, 93-96, 105, and 107.

58.    Regarding claims 161-172 have similar limitation as claims 150-160,

    Therefore, claims 161-172 are rejected under Carroll for the

    same reason set forth in the rejection of claims 150-160.


### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1.    Claims 105-106, and 110 are rejected under 35 U.S.C 103(a) as being

    unpatentable over Carroll in view of Hoffberg et al., (US Patent No. 6418424).

2.    Regarding claims 105-106, and 110 , Carroll fails to teach the mental state

    information and future state prediction of thin client user, and represents the

    information in the state attributes. However, Hoffberg clearly teaches the man-

machine interface in order to meet user's needs. (Hoffberg, Abstract, col.27,

l.27-30). These interfaces are ergonomically adapted to provide an optimized

environment for human interaction with the device. Furthermore, a

predicted input is presented for confirmation by the user, and the predictive

mechanism is updated based on this feedback. The interface system predicts a

desired action based on the user input, a past history of use, a context of use,

and a set of predetermined or adaptive rules (Hoffberg, col.27, l.44-46).

Regarding mental state, Hoffberg teaches the research has been performed

relating to VCR usability, technology, implementation, programming steps,

current technology, input devices, and human mental capacity (Hoffberg,

col.34, l.18-23). The interface and intelligent control of the present invention are

applicable to control applications in medicine or surgery. The interface may be

connected to various sensors, of the input device , such as ambient conditions

(temperature, humidity, etc.), as well as data from the patient, such as ,

respirator, anesthesia, temperature, blood gas monitor, mental status, etc.

as well as sensors and data sources ....( Hoffberg, col.98, l.35-54).

3.    Therefore, it would have been obvious to one of ordinary skill

in the art at the time the invention was made to combine sensor in Carroll

wearable device with Hoffberg's medial medical device interfaces to manipulate

with the user input attributes.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelvin Lin whose telephone number is 571-272-3898. The examiner can normally be reached on Flexible 4/9/5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kyl
12/10/05

**ANDREW CALDWELL
SUPERVISORY PATENT EXAMINER**